

attached thereto evidence the conception of an invention falling within independent claims 1, 25 and 49 and one or more dependent claims, at least as early as October 30, 2000, and thus prior to the March 23, 2001 effective date of Acharya. The declaration further evidences due diligence in the preparation of a patent application from just prior to the March 23, 2001 effective date until the filing date of August 7, 2001.

In an advisory action dated March 15, 2005, the Examiner contends that the new declaration does not cure the deficiency of the previously submitted declaration. Additionally, the Examiner contends that an affidavit from the attorney is required. Applicants strongly disagree.

The new declaration provides sufficient evidence to establish a conception of the invention prior to the effective date of Acharya. The new declaration provides an IBM disclosure document entitled "Indexing Method for Queries Using Multiple Positive and Negative Examples," dated October 30, 2000. This disclosure provides descriptions of the construction of the scoring function, the index construction and usage, and the search method. Therefore, the document discloses far more than a "vague idea of conception" as stated by the Examiner. 37 C.F.R. §1.131 states that "[o]riginal exhibits of drawings or records, or photocopies thereof, must accompany and form part of the affidavit or declaration or their absence satisfactorily explained." Applicants have fulfilled the requirement of supplying this exhibit as support for the assertion in paragraph 2 of the declaration. The Examiner contends that the applicant must point out exactly what facts are established and relied on by the application, however §1.131, cited by the Examiner, does not support this contention. Instead, it states that the examiner must consider all of the evidence presented in its entirety, including the affidavits or declarations and all accompanying exhibits, records and notes.

In order to provide further evidence of conception prior to the March 23, 2001 effective date of Acharya, the new declaration also provides a draft application sent by an inventor to the inventor's attorneys, on January 2, 2001, which describes an invention falling within independent claims 1, 25 and 49, as well as one or more dependent claims. This exhibit is provided as support for the assertion in paragraph 3 of the declaration. Therefore, the declaration and attached exhibits provide sufficient evidence to establish conception of the invention prior to the effective date of Acharya.

The Examiner also contends that there is an insufficient showing of diligence in the declaration and that an affidavit from the attorney is needed. As described by the Examiner, the critical period begins just prior to the March 23, 2001, effective date of Acharya and ends with the date of constructive reduction to practice on August 7, 2001. The IBM disclosure document and the draft application had been submitted to the inventor's attorney before the effective date of Acharya. Thus, as asserted in the declaration, reasonable attorney diligence took place just prior to the effective date until the constructive reduction to practice.

The Examiner has cited M.P.E.P. §2138.06 to support that fact that an attorney affidavit is needed. However, this section makes no reference to an attorney affidavit and states that an inventor or an attorney is not required to drop all other work and concentrate on the particular invention involved. Reasonable diligence is all that is required of the attorney. This reasonable diligence has been established since the attorney worked reasonably hard on the application during the continuous critical period. A reasonable backlog of unrelated cases which were taken up in chronological order and carried out expeditiously, is also acceptable. Finally, the diligence of the attorney in preparing and filing a patent application inures to the benefit of the inventor. Therefore, the declaration and attached exhibits provide sufficient evidence to establish diligence and no attorney affidavit is required.

With regard to the rejection of claims 1-49 under 35 U.S.C. §103(a) as being unpatentable over Acharya, and assuming *arguendo* that Acharya is prior art, Applicants assert that Acharya fails to provide the proper disclosure for an obviousness rejection.

Independent claim 1 recites a computer-based method of retrieving one or more items from at least one database in response to a query specified by a user via at least one example set. A scoring function is constructed from the at least one example set. The scoring function is operable for use with a multidimensional indexing structure associated with the at least one database. The one or more database items are retrieved that have the highest score as computed using the scoring function, via the multidimensional indexing structure. Independent claims 25 and 49 recite similar limitations to those described above with regard to independent claim 1.

Acharya discloses the use of a Mahalanobis distance measure to identify a query image among plural images in a database. A variance-covariance matrix is calculated for all images in the database to calculate the distance between the query image and the images in the database.

It is apparent from Acharya that the query is specified by a user using a single example, and thus, Acharya fails to disclose a query specified by a user via at least one example set. The present invention distinguished the use of an example set over a single example, as evidenced by page 2, lines 5-6, of the specification where it states that a “similarity search using a single example is only moderately effective. To improve retrieval performance, the user can provide multiple examples . . .” Therefore, Acharya fails to provide a query specified by an example set, which would not have been obvious to one of ordinary skill in the art at the time of the invention. The Examiner fails to provide any argument as to why this limitation would have been obvious to one of ordinary skill in the art at the time of the invention in any of the previous Office Actions.

Additionally, the Examiner admits that Acharya does not teach a scoring function operable for use with a multidimensional indexing structure associated with the at least one database. However, the Examiner contends that a suggestion of a calculation of images in the database and a multidimensional search method allow the Examiner to come to the conclusion of the claimed invention.

The multidimensional search method described in column 7, lines 45-55 of Acharya does not solve the problem addressed in the present invention. The multidimensional indexing structure is not guaranteed to return images that are close to the query image in the Mahalanobis distance of column 7, lines 10-15. This is due to the fact that the multidimensional indexing methods return results based on Euclidean distances, or using rectangular queries, while the Mahalanobis distance in general is not well approximated by either the Euclidean distance or by retrieving results that lie in a specified rectangle. Thus, Acharya fails to disclose a scoring function operable for use with a multidimensional indexing function, and such a scoring function would not have been obvious to one of ordinary skill in the art at the time of the invention.

Furthermore, the Federal Circuit has stated that when patentability turns on the question of obviousness, the obviousness determination “must be based on objective evidence of record” and that “this precedent has been reinforced in myriad decisions, and cannot be dispensed with.” In re

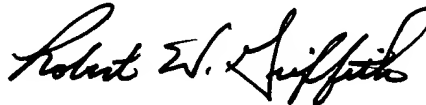
Lee, 277 F.3d 1338, 1343 (Fed. Cir. 2002). Moreover, the Federal Circuit has stated that “conclusory statements” by an examiner fail to adequately address the factual question of motivation, which is material to patentability and cannot be resolved “on subjective belief and unknown authority.” Id at 1343-1344.

In the Office Action of March 24, 2004, in paragraph 2 of page 3, the Examiner provides the following statement to prove obviousness: “Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to include the calculation of images which uses to index the images in the multidimensional in order to allow the efficient search or retrieval method [sic].” Applicants submit that these statements are based on the type of “subjective belief and unknown authority” that the Federal Circuit has indicated provides insufficient support for an obviousness rejection. More specifically, the Examiner fails to identify any objective evidence of record for support.

Dependent claims 2-24 and 26-48 are patentable at least by virtue of their dependency from independent claims 1 and 25. The patentability of claims 1 and 25 is described above. Further, dependent claims 2-24 and 26-48 recite patentable subject matter in their own right. For example, with regard to claims 2 and 26, Acharya fails to disclose multiple example sets and positive or negative example sets.

In view of the above, Applicants believe that claims 1-49 are in condition for allowance, and respectfully request withdrawal of the §103(a) rejection.

Respectfully submitted,



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Encl. Declaration of Prior Invention under 37 C.F.R. §1.131 (Bergman and Castelli);
Declaration of Prior Invention under 37 C.F.R. §1.131 (Li); and
Exhibits 1, 2 and 3